AMENDMENTS TO THE SPECIFICATION

Please add the following paragraphs after the paragraph ending on page 4 line 22:

Figure 8 is a schematic showing a single event pipe with the one event valve closed to retain the dose amount of gas.

Figure 9 is a schematic showing a single event pipe with the one event valve open to release the dose amount of gas.

Please replace the paragraph on page 7 ll. 4-9 with the following paragraph:

With the substrate surface 30, and the carbonaceous contamination still thermally energetic, a dose amount of gas 70 is released (Figures 5and 9). The gas, which may be oxygen, hydrogen, or any suitable gas which reacts with the carbon byproducts of the prior step, is supplied by a pipe channel (not shown) 90 sealed by a one event valve 100. These single event pipes 110 and one event valves 100 are well known and commonly fabricated in microelectromechanical systems. Figure 8 shows a single event pipe 110 with the one event valve 100 closed to retain the dose amount of gas 70. Figure 9 shows the single event pipe 110 with the one event valve 100 open to release the dose amount of gas 70.

Please replace the paragraph on page 7 ll. 10-21 with the following paragraph:

After the device has reached its destination, the fullerene layer 20 can be energized with the thermal and/or electrical energy. The one event valve 100 can then be opened, and the gas within the pipe channel 90 fills the cavity between the diaphragm and the tip 10. The resulting

interaction of the gas 70 with the carbonaceous contaminants 50 reacts to form a stable molecular gas 80, such as carbon monoxide and carbon dioxide, represented by CO and CO_2 in Figure 6. Using a prefabricated sacrificial surface (not shown) away from the tunneling device, these gases can be drawn to preferentially adsorb onto the sacrificial surface, leaving the region around the tunneling tip region free of adsorbed gases, fullerenes, or carbonaceous contaminants as shown in Figure 7. The process thus not only provides one nanometer padding to protect the delicate components, but also ensures exact spacing necessary for the optimum operation of the system.